GORDON S.
LANG
SCHOOL *of* BUSINESS AND ECONOMICS

ECONOMETRICS I
F24
0.5 Credits

General Course Information

Instructor: Thanasis Stengos

Email
Office Location MacKinnon 715
Office Hours Remote - TBA
Department/School Department of Economics and Finance

Class Schedule: Mon, Wed
10:00 AM - 11:20 AM
ANNU 306 (LEC)

Tues
7:00 PM - 8:50 PM
ALEX 309 (SEM)

Course Description

The course will develop the classical linear regression model and the relevant probability and statistical concepts that are used in the analysis of that model. Also we will consider the above model within the framework of maximum likelihood. We will present a short introduction into the generalization of the above model to include nonlinear interactions of parameters.

Course Learning Outcomes

Upon successfully completing this course, you will:

MA in Economics, graduates will be able to:
1. Demonstrate an understanding of microeconomic and macroeconomic theory and econometrics through successful completion of core disciplinary courses.
2. Obtain a deep understanding and proficiency in econometrics through the application of mathematical and statistical techniques.

Indicative Content

Topics to be covered:

(1) Review of the classical regression model with fixed regressors.
(2) Non-linear estimation
(3) Maximum likelihood estimation
(4) The three classical test statistics
(5) Instrumental Variable estimation (IV) and the generalised method of moments (GMM)

We will make extensive of available computer software that is available in the computer lab. You can use any computer package that you feel comfortable with.

Course Assessment

			Associated Learning Outcomes	Due Date/ location
Assessment 1:	20%	Assignments	All	*Throughout the Course*
Assessment 2:	30%	Midterm	All	*TBA in Class*
Assessment 3:	50%	Final exam	All	*In class during exam period*
Total	**100%**			

Teaching and Learning Practices

The course material will be based on lecture notes that will be delivered in class. The material will be complemented by the chapters from the recommended textbook **R. Davidson and J. Mackinnon,** *Econometric Theory and Methods,* **Oxford University Press, 2004.** However, in many places our approach will be different and on occasion there will be handouts that will be given to supplement the material presented in class.

Course Resources

Required Texts:

We will use primarily lecture notes that will be periodically distributed in class, although students will have to supplement the material in the notes from the following textbooks:

R. Davidson and J. Mackinnon, *Econometric Theory and Methods,* **Oxford University Press, 2004. This book is freely available on line by the authors/publisher.**

W. Greene *Econometric Analysis,* **Prentice Hall, 2002.**

Useful Reference:

R. Davidson and J. Mackinnon, Estimation and Inference in Econometrics, Oxford University Press, 1993.

T. Amemiya, Advanced Econometrics, Harvard, 1985.

E. Greenberg and C. E. Webster, Advanced Econometrics: A Bridge to the Literature, Wiley, 1983.

Z. Griliches and M. Intriligator, Eds., Handbook of Econometrics, Vols. 1 and 2, North Holland, 1983 and 1984.

J. Hamilton, Time Series Analysis, Princeton University Press, 1994.

A. C. Harvey, The Econometric Analysis of Time Series, Philip Allan.

D. F. Hendry and K. F. Wallis, Eds., Econometrics and Qualitative Economics, Basil Blackwell, 1984.

R. V. Hogg and D. T. Craig, Introduction to Mathematical Statistics, 4th Ed., Mackmillan, 1978.

G. G. Judge et al., The Theory and Practice of Econometrics, 2nd Ed., Wiley, 1985.

C.R. Rao, Linear Statistical Inference and its Applications, 2nd Ed., Wiley, 1973.

A. Spanos, Statistical Foundations of Econometric Modelling, Cambridge, 1986.

H. White, Asymptotic Theory for Econometricians, Academic Press, 1984.

University Policies

Disclaimer
Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

For information on current safety protocols, follow these links:
https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/

https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration:

https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e2180.shtml

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Graduate Calendar:

https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e2630.shtml

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment.

Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or see the website: https://wellness.uoguelph.ca/accessibility/

Course Evaluation Information

Please refer to the Course and Instructor Evaluation Website

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Drop date

The last date to drop one-semester courses, without academic penalty, is Friday November 29, 2024. For regulations and procedures for Dropping Courses, see the Academic Calendar:

https://www.uoguelph.ca/registrar/calendars/graduate/current/sched/sched-dates-f10.shtml